

ABSTRACT OF THE DISCLOSURE

A method for measuring a steering angle of a steering shaft for a vehicle uses a first rotatable body that rotates together with the steering shaft at an r_1 ratio and a second rotatable body that rotates together with the steering shaft at an r_2 ratio. An absolute rotational angle of the first rotatable body, Ψ , can be expressed as $\Psi' + i\Omega$, and an absolute rotational angle of the second rotatable body, θ , can be expressed as $\theta' + i\Omega$. Ψ' and θ' are measured using an angle sensor having a measurement range of Ω . To obtain the steering angle Φ of the steering shaft, measurement values Ψ_M' and for θ_M' of Ψ' and θ' are obtained. A plurality of θ' 's corresponding to the Ψ_M' value are calculated from a relation between Ψ' and θ' to yield a θ_C' . By comparing the θ_M' to the θ_C' , an i -value of the first rotatable body is obtained. The obtained i -value is then used to obtain an absolute rotational angle Ψ of the first rotatable body. Finally, from a relation between Ψ and θ , the steering angle Φ of the steering shaft is obtained.